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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/644,544	08/20/2003	Nicholas W. Whinnett	CE11860EP	6557

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EXAMINER	
NGUYEN, TUAN HOANG	
ART UNIT	**PAPER NUMBER**
2618	

DATE MAILED: 07/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/644,544	WHINNETT ET AL.	
	Examiner	Art Unit	
	Tuan H. Nguyen	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 April 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2-7,11-14 and 16-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *2-7,11-14 and 16-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed on 04/18/2006 with respect to claims 2-7, 11-14, and 16-19 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 2-4, 11, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Katz et al. (US PAT. 6,771,989 hereinafter, "Katz") in view of Ponnekanti (U.S PUB. 2002/0150065 hereinafter, "Ponnekanti").

Consider claims 4 and 14, Katz teaches a method of operation of a communication device for transmitting pilot bits and data bits associated with the pilot bits, the method comprising the steps of: dividing a set of pilot bits in a message into a first set of pilot bits and a second set of pilot bits (see fig. 6 col. 8 lines 8-27); and

sending the second set of pilot bits at a power level dependent on the data rate of the associated data bits (col. 9 lines 51-59).

Katz does not explicitly show that sending the first set of pilot bits at a first power level independent of the data rate of the associated data bits.

In the same field of endeavor, Ponnekanti teaches sending the first set of pilot bits at a first power level independent of the data rate of the associated data bits (the pilot bits are predetermined bits which are used, for example, for channel estimation. Therefore they are independent of data rate, see page 8 [0149]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use, sending the first set of pilot bits at a first power level independent of the data rate of the associated data bits, as taught by Ponnekanti, in order to provide a system in which interference between signals transmitted to a user via different transmission paths is reduced.

Consider claim 2, Katz teaches at least the second set of pilot bits are used to provide channel estimation and to minimize impact on the power control process and minimize interference (col. 6 lines 46-54).

Consider claim 3, Ponnekanti further teaches the first set of pilot bits are used to provide power control (page 8 [0149]).

Consider claim 11, Katz further teaches the second set of pilot bits are buffered prior to the step of deriving channel estimation information (col. 6 lines 46-54).

4. Claims 5-7 and 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Katz et al. (US PAT. 6,771,989 hereinafter, "Katz") in view of Ponnekanti (U.S PUB. 2002/0150065 hereinafter, "Ponnekanti") as applied to claim 4 above, and further in view of Yun et al. (US PUB. 2005/0111521 hereinafter, "Yun").

Consider claim 5, Katz and Ponnekanti, in combination, fails to teaches the power level of the second set of pilot bits is set to zero at low data rates of the associated data bits. However, Yun teaches the power level of the second set of pilot bits is set to zero at low data rates of the associated data bits (page 2 [0022]). Therefore, it is obvious to one of ordinary skill in the art at the time the invention was made to incorporate the disclosing of Yun into view of Katz and Ponnekanti, in order for enabling a mobile station receiving a data service or both a data service and a voice service to select a base station that can provide best services and an optimal data rate in a mobile telecommunication system.

Consider claim 6, Yun further teaches the steps of determining a first gain factor for the first set of pilot bits (page 2 [0022]); determining a second gain factor for the second set of pilot bits (page 2 [0022]); determining a data gain factor for the data bits (page 3 [0040]); and scaling the power at which the data bits and the pilot bits are

transmitted in accordance with the respective gain factors and a received power control message (page 3 [0040]).

Consider claim 7, Yun further teaches the second gain factor for the second set of pilot bits is set to zero at low data rates of the associated data bits (page 3 [0040]).

Consider claim 12, Yun further teaches determining the gain factor used for transmitting the second set of pilot bits (page 2 [0022]); wherein the step of deriving power control information includes the step of deriving power control information from the first set of pilot bits and also from the second set of pilot bits using the determined gain factor (page 1 [0005] and page 3 [0036]).

Consider claim 13, Yun further teaches the gain factor used for transmitting the second set of pilot bits is determined from signaling information received from the user device (page 2 [0022]).

5. Claims 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Katz et al. (US PAT. 6,771,989 hereinafter, "Katz") in view of Ponnekanti (U.S PUB. 2002/0150065 hereinafter, "Ponnekanti") as applied to claims above, and further in view of Husted et al. (US PAT. 6,785,523 hereinafter, "Husted").

Consider claim 16, Katz teaches a method of operation of a communication device comprising the steps: receiving pilot bits, associated with data bits, at a received signal level from a user device (col. 8 lines 8-27).

Katz and Ponnekanti do not explicitly show that comparing the received signal level to a plurality of threshold values; transmitting a power control command indicating a position of the received signal level relative to at least one of the plurality of thresholds.

In the same field of endeavor, Husted teaches comparing the received signal level to a plurality of threshold values (col. 13 lines 35-38); transmitting a power control command indicating a position of the received signal level relative to at least one of the plurality of thresholds (col. 13 lines 15-23).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use, comparing the received signal level to a plurality of threshold values; transmitting a power control command indicating a position of the received signal level relative to at least one of the plurality of thresholds, as taught by Husted, in order to provide an automatic gain control system for a wireless receiver that quickly differentiates desired in-band signals from high power out-of-band signals that overlap into the target band.

Consider claim 17, Husted further teaches the step of transmitting a power control command includes the step of transmitting multiple power control commands, each indicating the position of the received signal level to one of the plurality of

thresholds (col. 13 lines 15-23 and lines 35-38).

Consider claim 18, Husted further teaches the thresholds define a plurality of areas and the step of transmitting a power control command indicating the position of the received signal level relative to at least one of the plurality of thresholds comprises the step of transmitting a power control command to the user device indicating the position of the received signal level within one of the areas defined by the thresholds (col. 13 lines 15-23 and lines 35-38).

Consider claim 18, Husted further teaches incrementally adjusting the transmit power level dependent on the transmit power level and the indicated position (col. 13 lines 15-23).

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any response to this action should be mailed to:

Mail Stop_____ (Explanation, e.g., Amendment or After-final, etc.)

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Facsimile responses should be faxed to:

(571) 273-8300

Hand-delivered responses should be brought to:

Customer Service Window

Randolph Building

401 Dulany Street

Alexandria, VA 22313

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan H. Nguyen whose telephone number is (571) 272-8329. The examiner can normally be reached on 8:00Am - 5:00Pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Maung Nay A. can be reached on (571) 272-7882. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information Consider the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tuan Nguyen
Examiner
Art Unit 2618

NAY MAUNG
SUPERVISORY PATENT EXAMINER